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News Summary

Articles on inside pages

An N.I.H. panel investigating possible scientific misconduct was accused of providing information to a target of its inquiry. Page A4

Anthropologists met to explore the possibilities of ethnographic writing and research. Page A5

A survey of 660 institutions found 75 per cent offered health insurance to retired employees. Page A17

The A.A.U.P. decided that Northwestern U. had acted properly in a 1985 tenure-denial case. Page A17

A powerful ally to Texas educators, Wilhelmina Delco has also taken on some sacred cows. Page A23

Japanese businessmen are trying to buy control of the boards of several American colleges. Page A31

Colleges are hiring recent graduates to help coordinate student-volunteer programs. Page A33

Critics are debating the validity of standardized tests for aspiring teachers. Page A33

Delegates to the N.C.A.A.'s convention in January will consider 147 proposed rules changes. Page A37

South Africa is trying again to force universities to take a tough stance against activism. Page A41

South African academics have begun to consult outside the country with Soviet educators. Page A41

SECTION 1	Pages A1-52
Athletics	A37-40
Books	A8
Business & Philanthropy	A31-32
Coming Events	A47
Computers	A20
Deadlines	A50
Deaths	A47
Fact Files	A29, 34
Gazette	A47
Government & Politics	A23-30
Grants	A32
Ideas	A21
International	A41-46
Personal & Professional	A17-21
Scholarship	A4-16
Students	A33-36
SECTION 2	**Pages B1-60**
Bulletin Board	B6-59
End Paper	B60
Opinion & Letters	B1-5

U.S. Studies Policies at Harvard, UCLA on Admitting Asians

Public concern over quotas cited; universities vehemently deny bias

By ROBIN WILSON
WASHINGTON

The Education Department is examining admissions policies at Harvard University and the University of California at Los Angeles because of concern that the institutions may have illegally limited the enrollment of Asian American students.

Mahlon G. Anderson, a spokesman for Education Secretary Lauro F. Cavazos, said no specific complaints of discrimination had been filed against the institutions. But he said concern had been expressed by lawmakers, parents, and students about admissions policies at the two universities.

"We're not going into this saying Harvard is discriminating and U.C.L.A. is discriminating," said Mr. Anderson. "But there have been public allegations made that there may be a quota system limiting Asians, and we have got to go out there and check on the health of the system."

'We Absolutely Do Not Discriminate'

Officials at both Harvard and U.C.L.A. vehemently denied that their institutions had used quotas to restrict Asian students.

"We absolutely do not discriminate and do not have quotas set against Asian Americans or any other group," said Susie Chao, an admissions officer at Harvard University. "We'd like to bring in the most talented students, and to limit ourselves in any way—besides being illegal—would be detrimental in the long run."

Ms. Chao said the proportion of students at Harvard who are Asian Americans has nearly tripled in the last 10 years. In academic 1978-79, she said, 5 per cent of the freshmen at Harvard were Asians. This year, 14 per cent are.

There have also been increases in the

Continued on Page A27

Slight Decline in Enrollment Projected in Next 10 Years

	1988	1997	Change
	(Add 000)		
Total	12,560	12,173	−3.1%
Public	9,760	9,469	−3.0
Private	2,800	2,704	−3.4
4-year	7,881	7,570	−3.9
2-year	4,679	4,603	−1.6
Men	5,880	5,688	−3.3
Women	6,680	6,485	−2.9
Full-time	7,157	6,750	−5.7
Part-time	5,403	5,423	+0.4

SOURCE: U.S. DEPARTMENT OF EDUCATION

See story on Page A33.

'WAR OF WORDS'

How, After a 4-Year Unionization Fight, Faculty Finally Voted at Southern Illinois

By DEBRA E. BLUM
CARBONDALE, ILL.

After four years of expensive legal battles, heated campus debates, strategy sessions, and lobbying campaigns by telephone and newsletter, faculty members at Southern Illinois University were finally ready this month to vote on whether they wanted collective bargaining.

To union organizers and to some administrators and faculty members, there would be almost as much at stake in this election as there had been when the nation went to the polls to vote for a new President just the week before.

A Yes vote by faculty members at Carbondale would make them Southern Illinois's first faculty collective-bargaining unit ever, and the nation's first unit of full-time faculty members to organize since 1986, according to Joel M. Douglas, director of the National Center for the Study of Collective Bargaining in Higher Education and the Professions.

In recent years, there has been a shift away from the organization of full-time faculty members into collective-bargaining units. Instead, new units have been made up of part-time and non-tenure-track faculty members.

A No vote, on the other hand, would end a campaign for unionization that had stretched out over almost four years, largely because of disagreements between the unions and the administration over who should be included in potential collective-bargaining units.

Feverish Activity

In the days leading up to the election, that tension was reflected in the unions' feverish activity and the administration's public disapproval of unionization.

"The long road here was busy and hectic," said Donald J. Keck, a union

Continued on Page A18

Agricultural Researchers Seek $500-Million a Year in Campaign to Improve Their Scientific Stature

By DAVID L. WHEELER

Agricultural researchers are mounting a major new political initiative to try to improve their status on the American scientific scene.

A new $500-million-a-year grants program aimed at trying to put agricultural research back on the scientific frontier is being proposed by an independent committee for a "National Initiative for Agricultural Research," with support from the National Association of State Universities and Land-Grant Colleges and the National Research Council's Board on Agriculture. Agricultural scientists say government support of their research has lagged behind many other fields, such as biomedical research and physics, for decades.

The new agricultural grants would be awarded competitively. Their advocates hope they would attract the best scientists to agricultural problems, regardless of whether the scientists work at an agricultural school or consider themselves agricultural scientists.

'We've Had Broad Interest'

To try to gather as many supporters as possible, advocates of the new program are courting farm groups, scientific societies, biotechnology companies, traditional "agribusiness" companies, and commodity organizations interested in only one product, such as corn.

"We've had broad interest so far," says Theodore L. Hullar, chancellor of the University of California at Davis, who is head of the committee supporting the new program and chairman of the National Board on Agriculture. "There's a recognition that the funding for research related to agriculture is stagnating."

The initiative's advocates want to get an early start on influencing next year's federal budget. They have begun to lobby some members of Congress and hope to influence members of the Reagan-to-Bush transition team.

Those lobbying for the new grants also hope that a comprehensive report on financing for agricultural research, which

Continued on Page A26

BUSH RETAINS EDUCATION CHIEF

George Bush announces that Lauro Cavazos (right) will stay on as Education Secretary: Page A23.

MARGINALIA

Editorial in the *Idahonian / Daily News*:

"Research has become the darling of the academic profession, particularly at WSU [Washington State University] which has made a concerted effort in this decade to wave a magic wand and transform itself into a major research institution.

"Too often in such Cinderella schemes, the other two legs of the university stool—teaching and public service—never make it to the ball or get to meet Prince Charming."

That's because there's no room in the pumpkin for furniture.

■

Advertisement in *The Messenger*, a student bimonthly at Roger Williams College:

"The RWC Cheerleaders and the Athletic Department announce a position opening.

"Description: The HAWK.

"Qualifications: The applicant must have the following:

"—school spirit

"—creativity

"—ability to generate excitement and enthusiasm!

"No experience necessary, we supply the beak, wings and feathers."

Just so we don't have to grow our own.

■

Crime note in the Rider College *News*:

"On Sunday, Nov. 6 at 8 a.m., a Ziegler resident reported that a burglar removed her purse through a cut screen window.

"The student's purse was recovered near the Daly Dining Hall later that night. The money in the purse was removed.

"The Lawrence Township Police Department (LTPD) was called and dusted for fingerprints."

It's standard procedure in cases like that.

■

Introduction to the 1989 dues schedule of the American Mathematical Society:

"For any category of membership where no dues prices are given, the higher one is to be paid by persons whose annual professional income is $30,000 or more."

It's beyond us. But we were *never* much good at math.

■

From the *Phoenix*, the undergraduate paper at Loyola University of Chicago:

"The combination of the dewy decimal and the library of congress system of filing is not only confusing but frustrating when a student is trying to meet the deadline for a paper."

Besides, it's a nuisance to carry a towel. —C.G.

In Brief

Cornell U. Returns Funds Amid Protests Over Study

Protests over a Cornell University medical-school study involving barbiturate addiction in cats have forced administrators there to turn down a three-year, $520,000 federal grant to support the experiments.

While animal-rights groups applauded the decision, it enraged the director of the National Institute on Drug Abuse, Charles F. Schuster, who wrote to Cornell officials last month to emphasize the importance of continuing the study to advance the understanding of drug addiction.

Cornell officials last week said they would use university funds to continue support for Michiko Okamoto, a professor of pharmacology, who has decided to use rats, instead of cats, in her study.

They said the university had turned down the grant from the institute to protect Cornell's credibility. A letter Cornell sent to legislators last year suggested "ambiguously" that Ms. Okamoto would phase out her cat experiments, a medical-school spokesman said. However, much of her support from the institute was intended for experiments on cats.

2 N.Y. University Systems Freeze Hiring and Buying

The chancellors of New York's two public-university systems have imposed freezes on hiring and postponed all non-essential purchases to help the state reduce a budget deficit of nearly $950-million.

The actions by D. Bruce Johnstone, chancellor of the State University of New York, and Joseph S. Murphy, chancellor of the City University of New York, were requested by state budget officials.

Gov. Mario M. Cuomo, a Democrat, previously ordered all state agencies to impose such freezes. The two university systems are run by independent boards and were not required to comply.

The SUNY freeze is expected to last until Mr. Johnstone's budget officials determine what savings they will ask each campus to make. The CUNY freeze was announced with no cutoff date, but is not expected to affect the hiring of adjunct faculty members or graduate students next semester.

What They're Reading on College Campuses

		Previous Survey
1.	The Essential Calvin and Hobbes, by Bill Watterson	1
2.	Tales Too Ticklish to Tell, by Berke Breathed	3
3.	Beloved, by Toni Morrison	—
4.	The Power of Myth, by Joseph Campbell with Bill Moyers	4
5.	A Brief History of Time, by Stephen W. Hawking	8
6.	The Far Side Gallery 3, by Gary Larson	—
7.	Night of the Crash-Test Dummies, by Gary Larson	2
8.	Kaleidoscope, by Danielle Steel	—
9.	Love, Medicine & Miracles, by Bernie S. Siegel	—
10.	The Cardinal of the Kremlin, by Tom Clancy	—

The Chronicle's list of best-selling books was compiled from information supplied by stores serving the following campuses: American U., Brown U., Bucknell U., Carleton College, Carnegie Mellon U., Case Western Reserve U., Central Michigan U., Denison U., Indiana U., Lawrence U., Lehigh U., Mankato State U., Pennsylvania State U., Portland State U., Princeton U., Stanford U., Tarrant County Junior College, Tulane U., U. of Alaska at Anchorage, U. of California at San Diego, U. of Hawaii, U. of Iowa, U. of Maryland-Baltimore County, U. of Missouri at Columbia, U. of Nebraska at Lincoln, U. of New Orleans, U. of Notre Dame, U. of Pittsburgh, U. of Puget Sound, U. of Texas at Austin, U. of Virginia, U. of Washington, U. of Wisconsin at Madison, U. of Wisconsin at Milwaukee, Vanderbilt U., and Wichita State U.

Reports covered sales of hardcover and paperback trade books in October.

Fire Destroys Records at American River College

Thousands of student financial-aid and testing records were destroyed in a fire that caused an estimated $3.5-million in damage to the placement center at American River College.

The 20,000-student institution is one of the largest community colleges in California.

The main losses included placement-test results, financial-aid and scholarship records, computer data and computers, and audio-visual equipment, officials said. No academic records were lost.

The fire, which broke out during the night, was caused by an electrical malfunction.

Regents of Texas A&M U. Approve Merger Plans

The Board of Regents of the Texas A&M University system voted last week to merge with three predominantly Hispanic South Texas universities in a move aimed at strengthening those institutions.

The merger, which must be approved by the state Legislature, is one of several efforts undertaken in the past two years to upgrade education in South Texas.

The University of Texas and Pan American University are also negotiating a merger plan to send to the Legislature. The lawmakers are expected to vote on both mergers shortly after they convene in January.

The three institutions involved in the A&M merger plan—Texas A&I University, Corpus Christi State University, and Laredo State University—make up the University System of South Texas. The system's governing board approved the merger earlier.

Lawmakers from South Texas said they hoped the two mergers might help settle a lawsuit filed last year by the Mexican American Legal Defense and Educational Fund. The suit charged that the state had discriminated against Hispanic students by providing fewer programs and giving less money to public colleges with large Hispanic enrollments.

Fired Southern U. Head Files $5-Million Lawsuit

The recently fired president of Louisiana's Southern University system has sued the institution for $5-million, charging that the dismissal had damaged his reputation.

Joffre T. Whisenton, who was fired in late October, had been facing accusations of mismanagement from university board members, faculty members, and the state chapter of the National Association for the Advancement of Colored People. He offered to resign and sought a paid sabbatical, but the university board rejected his request and voted to remove him from the post.

Mr. Whisenton could not be reached for comment. One of his lawyers, Sheldon D. Beychok, said he had been fired without due process and "turned out into the streets." Mr. Whisenton is seeking salary and benefits that he be-

Reagans Break Ground for Presidential Library

AP/Wide World

SIMI VALLEY, CAL.

President Reagan and his wife Nancy used chrome-plated shovels last week to break ground for the construction of the Ronald Reagan Presidential Library near Los Angeles. Plans call for the facility to open on February 6, 1991, Mr. Reagan's 80th birthday.

About 375 guests attended the groundbreaking at the rural 100-acre site, located atop a scenic mesa in Simi Valley in Eastern Ventura County.

Gifts and 55 Million Documents

The library will house at least 55 million documents from Mr. Reagan's eight-year term of office, as well as gifts to him from foreign governments.

It is being built by the Ronald Reagan Presidential Foundation at a cost of $43-million. About $32-million had been raised from contributions by the end of 1987. The land was donated by a developer.

The Ventura County planning commission gave final approval to plans for the library in September after traffic, air-pollution, and ecological objections had been resolved.

Plans by the private developers who donated the land for a hotel, conference center, and private housing near the library site were dropped after county officials expressed concern about the possible overuse of the unincorporated area.

—JACK McCURDY

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Colleges and Blacks in Texas Find an Ally in Outspoken Legislator

Continued from Page A23

not only on the athletic teams, but the debate teams, cheerleading squads, and student government."

Adds Ms. Delco: "Other states come into Texas and raid talented black students. We've given birth to them, we've sent them to elementary and high school, and then we sit and watch while other people rip our brightest and our best."

One of her biggest accomplishments on behalf of black students, Ms. Delco says, was securing legislative approval for an amendment to the Texas Constitution that allows predominantly black Prairie View A&M University to share special funds that Texas A&M and the University of Texas had enjoyed for themselves.

Prairie View is under the governance of the A&M system, but had not had its share of the money set aside in a permanent state fund for those university systems, she says. The amendment set up an annual $100-million fund for colleges outside the University of Texas and A&M systems to use for construction and renovation of buildings, as well as for books, libraries, and other essential items.

Up Against Sacred Cows

Ms. Delco's interest in helping black Texans frequently brings her up against sacred cows. For example, she has made no secret of her disapproval of the tenure system, which she believes makes it difficult for women and members of minority groups to find jobs.

In an interview published in a statewide faculty newsletter, she said of the tenure system: "I think tenure has evolved into a kind of a security blanket which happens to give security to some people who happen to be part of the good-old-boys' network and denies security to young people who might really have a lot to offer the institution. It also often conflicts with affirmative action."

Ms. Delco says she believes the tenure system ought to be periodically reviewed to see whether it is still meeting the needs of higher education. Although her committee has examined the concept of tenure, it has not acted on the issue, and she says she does not expect it to do so in the future.

Ms. Delco is now closely monitoring, and occasionally questioning, a push by Hispanic politicians and educators to put more money into colleges and universities in South Texas, where many of the state's Hispanic citizens live. "Concentrating on South Texas is a disservice to blacks, as well as Hispanics living in other parts of the state," she says.

She has rankled Hispanic legislators with comments such as the following, which appeared in a newspaper interview: "They're not dedicated to expanding the pie as much as they are interested in taking a bigger part of the pie that has been allocated to minorities."

Clash Over Law Schools

Last year, Ms. Delco's interests again clashed with those of Hispanics over a proposal to close the law school at Texas Southern University, a historically black institution in Houston, and use the money for a new law school in South Texas. Ms. Delco made it plain she thought it was a bad idea, and the proposal was eventually dropped.

Politicians and academics here react to Ms. Delco's frank talk in different ways. Carlos Truan, a prominent Hispanic state senator, says Ms. Delco is "very knowledgeable and very dedicated." But he adds: "The general consensus among Hispanic legislators is that she has concentrated on the needs of black colleges, but has not demonstrated the same support for Hispanics, particularly in South Texas."

Among the black leaders in higher education, however, support for Ms. Delco is steadfast.

"I think she has been an outstanding educational leader," says Percy A. Pierre, president of Prairie View A&M University. "She is unusually effective in articulating the needs of the black constituency while at the same time being sensitive to the limitations of state funding."

Gerald W. Hill, vice-chancellor for governmental relations for the U.T. system, also gives Ms. Delco high marks. He did so even though Ms. Delco, who represents the district where the university's main campus *is located, is not afraid to criticize the* institution, particularly about minority recruitment.

"She is one of the most outspoken advocates of higher education in Texas," Mr. Hill says. "From time to time she will offer a criticism, but never without a remedy."

A Hectic Schedule

Getting Ms. Delco to sit down long enough for an interview can be a challenge. To accommodate her hectic schedule, she has interviews set up weeks in advance, and then there is little time for small talk.

Her schedule over the next few weeks will take her to Jackson, Miss., for a committee meeting of the Southern Regional Education Board; to Atlanta, for a meeting of the Southern Association of Colleges and Schools; and to Washington, to meet with the executive committee of the National Conference of State Legislators.

A sought-after speaker, Ms. Delco has held leadership positions in many national associations. She was the chairwoman of the Educational Testing Service's Board of Trustees and of the National Conference of State Legislatures' Education and Job Training Committee.

Elected to School Board in 1968

Ms. Delco grew up in Chicago and attended Fisk University, a historically black institution. There she met her husband, Exalton A. Delco, Jr., and moved with him after graduation to his home state of Texas.

Her interest in education was ignited when she got involved in the P.T.A. and Girl Scouts. She began her career in education policy in 1968, when she was elected to the Austin school board, where she served for six years.

When she discovered she was unable to make the major changes she wanted, she decided to run for the Legislature, and was elected on her first try. After serving on the House Public Education Committee, she was named to lead the Higher Education Committee.

While she was new to the committee, Ms. Delco was no stranger to higher education. Her husband taught biology at Huston-Tillotson College, a predominantly black institution, for 25 years before becoming an administrator there. He is now vice-president for academic affairs at Austin Community College.

Seeking Money for Recruiting

One of Ms. Delco's priorities in the next legislative session, which starts in January, will be obtaining more state funds for colleges and universities to identify and recruit strong minority students. The University of Texas and Texas A&M recently opened offices in cities around the state to recruit minority students, and Ms. Delco wants to get money to expand those efforts to other universities and other cities.

Something has to be done to restore black youngsters' faith in education, she believes. That will require "reselling the value of education" in terms that do not focus on money.

"Education was sold to blacks as the sure road out of the ghetto," she says. "Well, it's not true any more." Many black college graduates end up with dead-end jobs or no jobs at all, she says, while some who sell drugs end up getting rich.

Adds Ms. Delco: "We have to change the dialogue and realize we're losing kids. We're throwing away large segments of the population, and we can't afford to do that any more."

Court Seeks New La. Desegregation Plan

NEW ORLEANS

A federal court last week decided to appoint an outside expert to develop a new plan to end segregation in Louisiana's public colleges and universities.

The three-judge panel did not rule on the merits of a desegregation plan offered by Gov. Buddy Roemer, a Democrat, but it again endorsed the creation of a single board to govern all public colleges and universities, a change the Governor had sought.

The expert, called a special master, will work with the Governor's lawyers, officials from the U.S. Department of Justice, and representatives of the Board of Regents and the governing boards of the three separate public university systems.

The new plan will then be the subject of a trial, beginning February 15, at which it will be examined to determine if it will work and if it is constitutionally acceptable.

Earlier this year, the federal court found that Louisiana was operating a racially segregated higher-education system in violation of the Constitution and U.S. Civil Rights laws that bar discrimination in programs that receive federal funds. The trial is to determine an appropriate remedy.

The outcome of the Louisiana case *could be significant to other* desegregation cases in the South. Court rulings to date have criticized earlier approaches of improving predominantly black institutions by merely allocating them more money. In Louisiana, that simply fostered dual, racially identifiable systems, which are illegal, the court held.

Governor Roemer's plan suggested incentives and regulations to encourage white students to attend predominantly black institutions, and black students to enroll in predominantly white colleges and universities (*The Chronicle*, November 23). But most of the details of how the plan would work were to be determined by the new board.

The Justice Department contends that many of the techniques proposed by Governor Roemer could be put to use without waiting for the new governing board to be established, said Nathaniel Douglas, chief of the Educational Opportunities Section of the department's Civil Rights Division.

"We think the special master will help us break the log jam," said John N. Kennedy, special counsel to the Governor, referring to the political infighting among various interests that Mr. Roemer and others say have stymied progress.

—GOLDIE BLUMENSTYK

FACT FILE: Spending For Research and Development by Doctorate-Granting Universities, Fiscal 1987

	Federal government	State and local government	Industry	The institution itself	Other	Total
Alabama	$85,382,000	$16,449,000	$10,916,000	$29,919,000	$10,259,000	$152,925,000
Alaska	14,454,000	2,919,000	1,217,000	11,056,000	546,000	30,192,000
Arizona	80,955,000	8,965,000	17,456,000	61,644,000	12,243,000	181,263,000
Arkansas	12,257,000	9,352,000	2,829,000	8,028,000	3,063,000	35,529,000
California	1,062,819,000	36,739,000	72,260,000	289,604,000	90,379,000	1,551,801,000
Colorado	136,003,000	8,771,000	8,728,000	17,682,000	14,515,000	185,699,000
Connecticut	155,717,000	2,495,000	9,298,000	39,761,000	23,519,000	230,790,000
Delaware	13,662,000	1,995,000	3,659,000	10,117,000	2,248,000	31,681,000
D.C.	62,968,000	484,000	4,192,000	11,642,000	6,184,000	85,470,000
Florida	128,868,000	13,341,000	20,730,000	72,419,000	16,945,000	252,303,000
Georgia	149,556,000	39,603,000	33,568,000	91,946,000	9,487,000	324,160,000
Hawaii	34,472,000	19,317,000	261,000	2,591,000	704,000	57,345,000
Idaho	8,988,000	8,314,000	2,899,000	4,436,000	142,000	24,779,000
Illinois	293,929,000	30,610,000	23,791,000	117,826,000	32,065,000	498,221,000
Indiana	111,413,000	15,772,000	17,203,000	37,627,000	6,071,000	188,086,000
Iowa	76,862,000	16,651,000	6,212,000	49,668,000	8,089,000	157,482,000
Kansas	37,386,000	20,031,000	5,433,000	27,607,000	3,474,000	93,931,000
Kentucky	30,778,000	10,841,000	6,715,000	26,545,000	3,129,000	78,008,000
Louisiana	54,367,000	31,850,000	7,154,000	42,639,000	12,553,000	148,563,000
Maine	7,787,000	315,000	2,051,000	5,740,000	1,059,000	16,952,000
Maryland	575,176,000	50,198,000	25,577,000	52,311,000	6,723,000	709,985,000
Massachusetts	536,435,000	18,398,000	59,993,000	36,792,000	67,454,000	719,072,000
Michigan	208,017,000	30,343,000	25,072,000	103,788,000	29,566,000	396,786,000
Minnesota	109,003,000	37,287,000	11,056,000	39,371,000	25,664,000	222,381,000
Mississippi	22,492,000	16,667,000	4,170,000	8,897,000	5,396,000	57,622,000
Missouri	113,458,000	11,779,000	19,122,000	50,268,000	12,393,000	207,020,000
Montana	9,910,000	8,626,000	3,126,000	7,853,000	0	29,515,000
Nebraska	32,934,000	16,074,000	4,185,000	14,976,000	3,561,000	71,730,000
Nevada	13,608,000	1,912,000	4,065,000	7,824,000	661,000	26,070,000
New Hampshire	34,633,000	2,045,000	2,081,000	4,976,000	4,055,000	47,790,000
New Jersey	96,048,000	37,489,000	11,910,000	55,142,000	14,991,000	215,580,000
New Mexico	75,923,000	17,908,000	20,123,000	9,756,000	4,004,000	127,714,000
New York	769,178,000	52,771,000	62,499,000	137,090,000	108,604,000	1,130,142,000
North Carolina	195,177,000	54,897,000	23,825,000	25,757,000	14,163,000	313,819,000
North Dakota	17,492,000	15,376,000	2,134,000	3,701,000	281,000	38,984,000
Ohio	193,061,000	34,903,000	22,360,000	46,924,000	31,524,000	328,772,000
Oklahoma	25,908,000	3,380,000	6,738,000	57,620,000	5,470,000	99,116,000
Oregon	81,932,000	18,645,000	4,059,000	12,936,000	14,683,000	132,255,000
Pennsylvania	387,038,000	24,229,000	61,299,000	76,500,000	55,766,000	604,832,000
Rhode Island	51,313,000	2,136,000	5,380,000	5,293,000	1,394,000	65,516,000
South Carolina	34,350,000	14,061,000	6,184,000	37,110,000	4,106,000	95,811,000
South Dakota	5,188,000	4,700,000	482,000	875,000	268,000	11,513,000
Tennessee	80,820,000	25,789,000	13,792,000	19,232,000	4,511,000	144,144,000
Texas	403,298,000	89,468,000	46,295,000	172,935,000	98,997,000	810,993,000
Utah	81,355,000	13,412,000	5,734,000	16,178,000	4,199,000	120,878,000
Vermont	22,289,000	1,805,000	2,877,000	3,330,000	1,246,000	31,547,000
Virginia	116,654,000	36,400,000	18,103,000	27,110,000	8,354,000	206,621,000
Washington	166,458,000	5,561,000	21,183,000	33,623,000	9,102,000	235,927,000
West Virginia	13,011,000	871,000	884,000	10,736,000	1,202,000	26,704,000
Wisconsin	171,704,000	49,818,000	11,992,000	45,196,000	24,478,000	303,188,000
Wyoming	8,701,000	1,129,000	1,216,000	6,176,000	94,000	17,316,000
Territories	19,030,000	10,558,000	0	20,774,000	4,112,000	54,474,000
Total	$7,230,217,000	$1,003,449,000	$764,088,000	$2,109,547,000	$823,696,000	$11,930,997,000

Note: Figures cover only research-and-development expenditures in science and engineering, and exclude spending in such disciplines as the arts, education, the humanities, law, and physical education.

SOURCE: NATIONAL SCIENCE FOUNDATION

Note Book

Does research fraud have its origins in student cheating? Robert G. Petersdorf, president of the Association of American Medical Colleges, explored that question in a speech at the association's annual meeting this month. Among premedical students, Dr. Petersdorf said, cheating on examinations, deliberate failures to help classmates, and forged letters of recommendation are "all too common."

The association's Section for Student Services investigated 952 incidents of such behavior between 1978 and 1987, Dr. Petersdorf said, including a case in which a student tried to use a Boy Scouts of America insignia as a substitute for the university seal on a transcript.

Dishonest behavior continues, Dr. Petersdorf said, in medical school and in graduate medical education. Most shocking to him, he said, were reports from hospital administrators that in June—the time when medical residents move on to other assignments—medical supplies, such as syringes, bandages, blood-pressure cuffs, and small surgical instruments, have "a remarkable propensity for 'walking'."

One administrator even reported the disappearance of an operating table.

As one remedy, Dr. Petersdorf proposed that admissions committees start looking into the "moral background" of students and not just at their test scores or undergraduate research projects.

■

Harvard Law School students are doing their best to pass along some of their luxuries to the homeless.

As a recruiting device, law firms typically put their interviewees up in posh hotel rooms. Instead of staying at the usual first-class digs, however, more than 600 students are taking less expensive rooms and asking the firms to donate the difference in cost to homeless shelters in their areas.

So far, about 115 firms, all for-profit, have agreed to cooperate. A local travel service is donating some of its commission on airline tickets—booked by the law students—to Boston's homeless.

The fund-raising effort is being organized by Code Critical, a year-old group of Harvard law students dedicated to battling homelessness.

"The interview process has become more and more luxurious, and we thought that the homeless need the money a lot more than we do," says Code Critical's James Lovett, a third-year student.

He says the firms enjoy the chance to show their concern for the needy. Also, he says, they're interested in making the interviewees as comfortable as possible. If that means booking a less expensive room for charity's sake, the firms are happy to oblige. "It doesn't cost them any more money," Mr. Lovett says.

The students expect to raise between $30,000 and $50,000.

Students

Colleges Hire Young Graduates, Dubbed 'Green Deans,' to Help Run Their Student-Volunteer Programs

Pay is low; most of the administrators say they do their jobs out of love

By MICHELE N-K COLLISON

NORTHFIELD, MINN.

Boxes of clothes are stacked on the floor of Carla J. Dewey's office at Carleton College. Along with an assortment of jeans, overcoats, and skirts, an occasional teddy bear pokes its head out of a carton.

"College students usually come to school with everything they've owned since the seventh grade," says the 22-year-old Ms. Dewey, who graduated from Carleton last spring. "It usually ends up here, and we put it to good use." After student volunteers sort the clothes, they take them to a local social-service agency for distribution to the poor.

PHOTOGRAPH FOR THE CHRONICLE BY STEVE WOIT, PICTURE GROUP

Carla J. Dewey, with Carleton students: "I think we're helping to dispel the notion that being a volunteer means you're a Goody Two-shoes."

'Someone to Be a Catalyst'

Ms. Dewey's office serves as the headquarters of Acting in the Community Together, Carleton's student-volunteer program. Ms. Dewey, who is frequently mistaken for a student volunteer herself, is ACT's coordinator. She keeps track of volunteers, devises strategies to attract new recruits, and meets regularly with her program directors, the heads of social-service agencies, and college administrators.

Ms. Dewey is one of some 40 recent college graduates, popularly known as "green deans," who have been hired by institutions to help coordinate student-volunteer programs.

As such campus activities grow, colleges are recognizing that the programs need to be better organized, says Wayne W. Meisel, executive director of the Campus Outreach Opportunity League, which is based at the University of Minnesota. The league promotes community service by students. Mr. Meisel says the programs are "an effective way to get students involved."

Mr. Meisel says his group borrowed the term "green deans" from colleges that use it to refer to recent graduates who work as assistant deans in admissions offices.

"The campuses need someone to be a force, someone to be a catalyst," says Mr. Meisel, who was himself one of the first

Continued on Page A36

Critics Question Validity of Standardized Tests for Would-Be Teachers

By CHERYL M. FIELDS

State after state adopted requirements in the 1980's for testing would-be teachers, sometimes with little discussion about what examinations can measure or exactly what state leaders wanted them to measure, say critics of the testing requirements.

"State legislatures put these test requirements into effect very quickly, and there has not been a lot of time devoted to test-construction and validation," says Linda Darling-Hammond, director of the Rand Corporation's Education and Human Resources Program. "The people who mandate the tests ought to be devoting more money to studies of validity."

Before 1980, only 10 states required some form of standardized testing of would-be teachers. Now at least 46 states have or are planning certification tests, and 27 require students to pass tests or to earn certain scores on standardized entrance exams before they can major in education.

Some critics assert that there is little evidence that earning a high score on the tests means the test-taker will be a better teacher than someone with a lower score. Some also say there is no general agreement on the levels of professional skills or academic knowledge needed by teachers to be effective in various classroom settings—a consensus that they say is needed if fair tests are to be designed.

Concern About Minority Students

Ms. Hammond, who was the co-author of a Rand report released in April on the evolution of state policies toward teachers, says that at least six states delayed their original deadlines for putting testing requirements into effect or developed different or additional techniques for assessment, because of concerns about the high failure rates on the tests among members of minority groups in other states (*The Chronicle*, November 2).

Another concern, she says, is "the perception of many teachers and teacher educators—and the findings of most studies—that professional-knowledge tests for teachers fail to tap the knowledge and skills important to teaching."

Says Catherine Havrilesky, executive director of teacher programs for the Educational Testing Service: "It is indeed difficult to gain consensus on the importance

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Education Department Foresees Slight Fluctuations in Number of College Students Over Next Decade

WASHINGTON

The number of college students is expected to fluctuate only slightly over the next decade, according to new estimates prepared by the U.S. Department of Education.

In a report on projections of education statistics through 1997-98, the department also said the number of college professors was expected to decline. In addition, with the exception of master's degrees and doctorates, fewer academic degrees are expected to be awarded.

College and university enrollments are expected to rise from an estimated 12.56 million this fall to a record 12.58 million in 1990, decline gradually to 12.14 million by 1996, then edge up to 12.17 million in 1997.

Over all, according to the projections, enrollment will drop 3.1 per cent from 1988 to 1997.

In spite of a continued decline in the traditional college-age population, enrollment is expected to grow in the next few years because of rising college-participation rates of 18- to 21-year-olds and increased numbers of older and part-time students, the department said in its report.

After 1990, however, enrollment will fall, because the number of part-time students is expected to be stable, and the in-

Continued on Following Page

Critics Debate Validity of Standardized Tests for Would-Be Teachers

Continued from Preceding Page
of different areas of professional knowledge, but we rely on members of the profession to tell us what the objectives for the test should be, drawing from their values."

Ms. Havrilesky disagrees with some critics' contentions that testing requirements have been put into effect too quickly. "When tests have been mandated, in the states we've worked with, there have been months of discussion among all of the people who have a stake in teacher education," she says. "In some places there are literally hundreds of people involved in that process," she adds, referring to the panels of educators typically convened to consider the appropriateness of test questions and to help state officials establish passing and failing scores.

Besides concerns about lack of agreement on what skills and knowledge teachers need, critics say the tests now in use sometimes do a poor job of testing the areas they do cover. In 1986, Ms. Darling-Hammond examined a sample version of the widely used professional-knowledge test that is part of the National Teacher Examinations, published by the Educational Testing Service.

RAND CORPORATION

Linda Darling-Hammond: "There has not been a lot of time devoted to test-construction and validation."

EDUCATIONAL TESTING SERVICE

Catherine Havrilesky of E.T.S.: "One of the challenges for the future is to find ways of more directly measuring performance."

STANFORD U.

Edward Haertel: "If scores cannot be shown to predict classroom performance, then rational standard-setting is impossible."

New Test Planned

She concluded that about 40 per cent of the more than 100 questions had no correct answer, either because several of the possible answers could be correct or because insufficient information was given in the question.

The E.T.S. recently released details of a previously announced plan to develop a successor to the N.T.E., parts of which now are used for admissions to teacher training or for teacher certification in 30 states. Different portions of the new examination, which the company says will incorporate the latest developments in educational and psychological research, will be given when students are sophomores, when they have completed teacher training, and when they have completed periods of supervised experience in the classroom.

The N.T.E. is a paper-and-pencil, multiple-choice test. The E.T.S. says its successor, which is scheduled to be introduced in 1992, will add other methods of assessment, including computer simulations, interactive video, and classroom observation. After a transitional period during which both the N.T.E. and its successor will be offered, the new examination will replace the N.T.E.

Edward Haertel, associate professor of education at Stanford University and an expert in educational measurement and evaluation, says the E.T.S. is responding to some of the criticisms of its tests. "I'm encouraged by what they are doing," he says. "Until we actually see what they are proposing to use, however, we won't know how many of the criticisms will have been met."

He adds: "Many thousands of decisions will have been made based on the current N.T.E. by the time the new tests are introduced."

About 200,000 prospective teachers take the National Teacher Examinations each year, according to the E.T.S.

Tests of General Knowledge

Besides professional-knowledge tests, examinations of general academic knowledge and communications skills are required by many states for entry to teacher-training programs and for certification of teachers. State officials defend these "basic skills" tests of reading, writing, and mathematics as vital to protecting elementary- and secondary-school students from bad teachers and to restoring public confidence in the schools.

They contend that the cutoff scores are not unduly high and that anyone who cannot pass such tests is not really literate and should not be in front of a classroom. Taxpayers will not support the higher salaries needed to attract and retain good teachers without evidence of basic competence, say officials of state education departments.

But the tests also have their critics.

Says Barbara Hatton, former dean of education at Tuskegee University and now a program officer at the Ford Foundation: "I agree that a teacher not competent in basic skills ought not to be in a classroom. Yet state officials often do not engage in discussion of what tests do and what they are supposed to do."

Some students who are not illiterate fail the academic-skills tests, she says, "and yet I could have students who had passed an English proficiency exam come into my office and use horrible English."

'A Narrow, Technical Approach'

"They could find their way through the trickiness of multiple-choice questions, and then not apply the rules in spoken language," she continues. "I can guarantee you that I can get you past the test and you need not be literate. We're badly in need of better assessment tools."

She adds: "At Tuskegee, we did raise our passing rates on the tests. But concentrating resources and attention on test scores is a narrow and technical approach. It is a trap, because we know that the tests do not have the predictive validity they should have to deny someone access to a profession totally."

Carol Anne Dwyer, who is overseeing development of the successor to the National Teacher Examinations at the E.T.S., says the new version may use a computer-based test of basic academic skills, although some of the test still might be in a multiple-choice format. Later in the prospective teacher's career, other types of assessment will be used.

Using different testing methods at various stages of a prospective teacher's educational career "will give people a better chance to show what they can do," she adds. Ms. Dwyer acknowledges, though, that a student who couldn't pass the first stage of testing at the end of the sophomore year would be barred from continuing in teacher training.

"It is foolish to hope that all the equity problems we now see in education will disappear," she

Slight Fluctuations Seen in Number of College Students Over Next Decade

Continued from Preceding Page
creases in the numbers of older students will not be large enough to offset declines in the enrollment of younger students, according to the report.

The department generally expects stability in the composition of enrollment in 1988 and 1997.

Women will continue to outnumber men, 53 per cent to 47 per cent; full-time students will outnumber part-time students, 56 per cent to 44 per cent, and enrollment at public colleges will outpace enrollment at private institutions, 78 per cent to 22 per cent.

However, some shifts in the age distribution of college students will occur from 1987, the latest year for which those figures are available, to 1997. While the proportion of those who are 21 and younger will remain at 41 per cent, the proportion of those 22 to 34 will decrease to 38 per cent from 43 per cent, and the proportion of those 35 and older will rise to 21 per cent from 16 per cent.

The number of faculty members is expected to fluctuate with enrollment levels. The ranks of college professors will rise from 723,000 this fall to 726,000 in 1990, drop to 698,000 in 1995, and then rise to 700,000 in 1997.

Increase in Part-Time Professors

Losses in the number of full-time professors will account for the overall decline from 1988 to 1997. Over the period the number of those employed full time will drop to 434,000 from 458,000, while the number of those employed part time will increase to 266,000 from 265,000.

Among other trends, the Department of Education expects these changes from 1988 to 1997:

- Undergraduate enrollment will fall 3.2 per cent, to 10.57 million. The number of associate degrees awarded will fall 3.8 per cent, to 408,000, and the number of bachelor's degrees conferred will decline 7.4 per cent, to 916,000.
- Graduate enrollment will decline 1.5 per cent, to 1.34 million. The number of master's degrees earned will remain at 290,000, while the number of doctorates conferred will rise 3.6 per cent, to 34,700.
- Enrollment in professional programs such as law, medicine, and theology will decline 6.5 per cent, to 260,000, and the number of professional degrees awarded will drop 0.9 per cent, to 73,700.

In a continuation of a pattern of the last decade, the department expects that more women and fewer men will earn advanced degrees in the future. For example, from 1988 to 1997, the number of women earning doctorates is estimated to rise to 15,900 from 12,400, while the number of men earning doctorates will fall to 18,800 from 21,100.

Copies of the 128-page report, *Projections of Education Statistics to 1997-98*, may be purchased for $8.50 each, prepaid, from the Superintendent of Documents, U.S. Government Printing Office, Washington 20402. Request stock number 065-000-00356-2. —JEAN EVANGELAUF

FACT FILE: College and University Enrollment Projections, 1988-1997

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Total enrollment	12,560,000	12,570,000	12,585,000	12,529,000	12,408,000	12,300,000	12,201,000	12,151,000	12,142,000	12,173,000
One-year change	+0.1%	+0.1%	+0.1%	−0.4%	−1.0%	−0.9%	−0.8%	−0.4%	−0.1%	+0.3%
Men	5,880,000	5,890,000	5,905,000	5,884,000	5,845,000	5,798,000	5,744,000	5,705,000	5,688,000	5,688,000
Women	6,680,000	6,680,000	6,680,000	6,645,000	6,563,000	6,502,000	6,457,000	6,446,000	6,454,000	6,485,000
Public institutions										
4-year	5,346,000	5,320,000	5,323,000	5,303,000	5,250,000	5,197,000	5,148,000	5,120,000	5,113,000	5,127,000
2-year	4,411,000	4,444,000	4,454,000	4,432,000	4,389,000	4,361,000	4,338,000	4,329,000	4,333,000	4,342,000
Private institutions										
4-year	2,532,000	2,537,000	2,539,000	2,528,000	2,506,000	2,482,000	2,457,000	2,443,000	2,437,000	2,443,000
2-year	268,000	269,000	269,000	266,000	263,000	260,000	258,000	259,000	259,000	261,000
Full-time students	7,157,000	7,116,000	7,095,000	7,013,000	6,916,000	6,819,000	6,743,000	6,706,000	6,711,000	6,750,000
Part-time students	5,403,000	5,454,000	5,490,000	5,516,000	5,492,000	5,481,000	5,458,000	5,443,000	5,431,000	5,423,000
Undergraduate	10,919,000	10,926,000	10,937,000	10,875,000	10,757,000	10,647,000	10,561,000	10,526,000	10,530,000	10,570,000
Graduate	1,363,000	1,368,000	1,372,000	1,378,000	1,377,000	1,379,000	1,369,000	1,358,000	1,349,000	1,343,000
First-professional	278,000	276,000	276,000	276,000	274,000	274,000	271,000	267,000	263,000	260,000
Full-time-equivalent	9,068,000	9,088,000	9,080,000	9,008,000	8,903,000	8,803,000	8,718,000	8,678,000	8,677,000	8,713,000

SOURCE: U.S. DEPARTMENT OF EDUCATION, NATIONAL CENTER FOR EDUCATION STATISTICS